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EOC-5610

Wireless 802.11 a/b/g Outdoor AP

- 2.4 GHz / 5 GHz
- 54Mbps
- 802.11a/b/g
- 24V PoE

PRODUCT DESCRIPTION

EOC-5610 is a long range outdoor wireless Access Point / Client Bridge that operates in both 5GHz and 2.4GHz frequency. It provides high bandwidth up to 54Mbps and features high transmitted output power as well as superior sensitivity. EOC-5610 extends radio coverage, avoids unnecessary roaming between Access Points and ensures a stable wireless connection while reduces the number of required equipments.

EOC-5610 provides user friendly interface including user friendly distance control ranges from 1KM up to 30KM and RSSI LED indicator offering real time signal status. It comes with PoE injector for convenient outdoor installation.

EOC-5610 enforces transmission security with full support of latest encryption mechanism including 64/128-bit WEP, WPA and WPA2. With 13dBi internal antenna and superior performance, EOC-5610 makes an optimal wireless solution for both small and large scale projects.

Package Content

- 1* Wireless 802.11a/b/g Outdoor Device(EOC-5610)
- 1* PoE Injector (EPE-1212)
- 1* Power Adapter(24V/1A)
- 1* CD with User's Manual
- 1* QIG
- 1* Metal strap
- 2* Special screw set

EOC-5610 Datasheet Version 03162009

* Theoretical wireless signal rate based on IEEE standard of 802.11 a, b, g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

** All specifications are subject to change without notice

BUSINESS CLASS
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Features

Wireless

- ***5GHz / 2.4GHz*** It works in 5GHz / 2.4GHz frequency spectrum
- ***High output power*** Transmit output power programmable for different country selections
- ***High Data Rate*** High speed transmitting rate up to 54Mbps, supports large payload such as MEPG video streaming
- ***Multifunction application*** Access Point/Client Bridge/Client Router
- ***Long range transmitting*** Transmit power control and distance control (ACK timeout)
- ***Signal Strength Display*** LED indicators have the best transmit and receive signal for traffic communication. And RF signal strength status shown LEDs of 3 colors, making network build-up easier
- ***Public wireless solution*** An AP interface that is especially useful in public areas such as hotspots and enterprise
- ***QoS(WMM)*** Enhance performance and density

Networking

- ***PPPoE*** Point-to-Point Protocol over Ethernet at Client Router mode. This function will keep trying when failed or disconnected
- ***VPN Pass Through***

Security

- ***802.11i*** WEP, WPA, WPA2 (Encryption support TKIP/AES)
- ***MAC address functions*** MAC address filter (AP mode)
- ***802.1x*** IEEE802.1x Authenticator
- ***Station isolation***

Management

- ***Firmware Upgrade*** Upgrading firmware via web browser, setting are reserved after upgrade
- ***Reset & Backup*** Reset to factory default. User can export all setting into a file via WEB
- ***MIB*** MIB I, MIB II(RFC1213)
- ***SNMP*** V1, V2c

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TECHNICAL SPECIFICATION			
> Hardware Specification			
MCU/RF	Atheros AR2313+AR5112		
Memory	32MB SDRAM		
Flash	8MB		
Physical Interface	1 x 10/100 Fast Ethernet RJ-45 1 x Reset Button 1 x Antenna Switch (Internal and External Switch) 2 x SMA Connector (One is for 2.4GHz and another is for 5GHz)		
LED indicators	Power/ Status LAN (10/100Mbps) WLAN (Wireless is up) 3 x Link Quality (Client Bridge mode) • Green: Good Quality • Yellow: Marginally Acceptable Quality • Red: Bad Quality		
Power Requirements	Active Ethernet (Power over Ethernet) Proprietary PoE design Power Adapter 24V / 1A DC		
Regulation Certifications	FCC Part 15C/15B/15E, EN301 893, EN 300 328, EN 301 489-1/-17, EN60950, IC Certification		
> RF Specification			
Frequency Band	**802.11a =** 5.150~5.350GHz, 5.470~5.725GHz, 5.725~5.825GHz **802.11b/g =** 2.412~2.472GHz		
Modulation Technology	OFDM = BPSK, QPSK, 16-QAM, 64-QAM DSSS = DBPSK, DQPSK, CCK		
Operating Channels	**802.11a = See the Table1** **802.11b/g =** 11 for North America, 14 for Japan, 13 for Europe		
Receive Sensitivity (Typical)	**802.11a** -92dBm @ 6Mbps, -73dBm @ 54Mbps	**802.11g** -92 dBm @ 6Mbps, -75 dBm @ 54Mbp	**802.11b** -97 dBm @ 1Mbps -91 dBm @ 11Mbps

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Available transmit power (Average power)

FCC		ETSI	
Frequency	Power	Frequency	Power
5.150~5.350 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.150~5.350 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
5.470~5.725 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.470~5.725 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
5.725~5.825 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.725~5.825 GHz **IEEE802.11a**	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
2.412~2.462 GHz **IEEE802.11g**	23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps	2.412~2.472 GHz **IEEE802.11g**	23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps
2.412~2.462 GHz **IEEE802.11b**	23dBm@1~11Mbps	2.412~2.472 GHz **IEEE802.11b**	23dBm@1~11Mbps

Internal Antenna	Antenna Specification		
	Gain	5dBi	13dBi
	Radiation	Directional	Directional
	Frequency Band Range	2.4-2.5GHz	5.1-5.8GHz
	Horizontal -3dB Bandwidth	40°	42°
	Vertical -3dB Bandwidth	40°	21°

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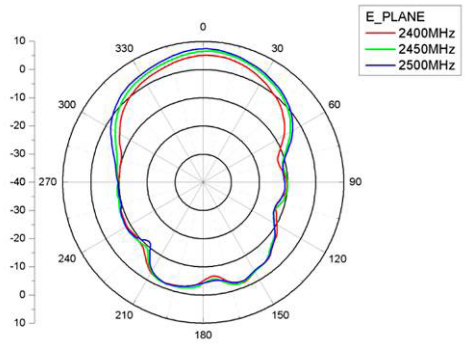
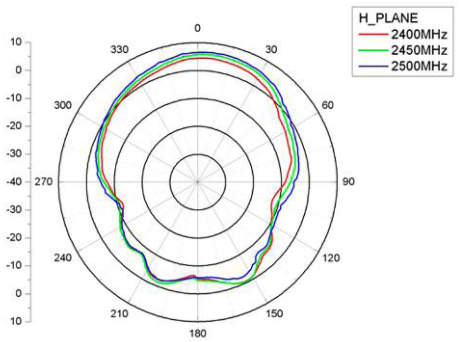
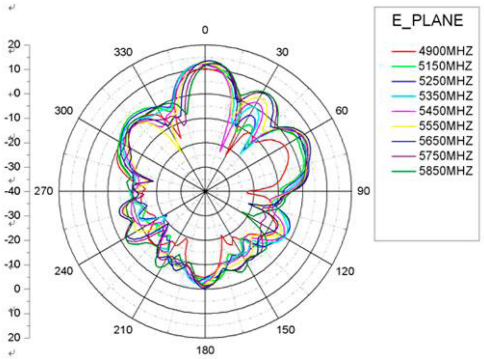
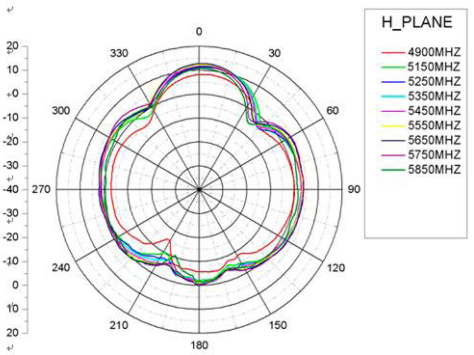
Internal Antenna Pattern	
	
	
External Antenna	2 x SMA connector (for 2.4GHz and 5GHz individually)
> Software Features	
General	
Topology	Infrastructure
Protocol / Standard	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.11b/g (2.4GHz WLAN)
Operation Mode	**802.11 a/b/g** Access Point Client Bridge Client Router
LAN	DHCP Server DHCP Client
VPN	VPN Pass through

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Wireless	Channel Selection (Setting varies by countries) Transmission Rate 11 a/b/g : 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps Long distance transmission : 1km to 30km (Ack timeout) Transmit power table Signal Strength indication using LEDs PPPoE (CR mode) Multiple SSID/VLAN
Security	WEP Encryption-64/128/152 bit WPA/WPA2 Personal (WPA-PSK using TKIP or AES) WPA/WPA2 Enterprise (WPA-EAP using TKIP) 802.1x Authenticator Hide SSID in beacons MAC address filtering, up to 50 field Wireless STA (Client) connected list
QoS	WMM
> Management	
Configuration	Web-based configuration (HTTP)
Firmware Upgrade	- Upgrade firmware via web-browser - Keep latest setting when f/w update
Administrator Setting	Administrator password change
Reset Setting	- Reboot (Press 1 second) - Reset to Factory Default (Press 5 seconds)
System monitoring	Status, Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II (RFC1213)
Backup & Restore	Settings through Web
Time setting	NTP (Auto-setting of time) Time setting manually
ENVIRONMENT AND MECHANICAL	
Temperature Range	Operating -20°C~70°C Storage -30°C to 80°C
Humidity (non-condensing)	0% ~ 95% typical
Dimensions	260mm (L) x 84mm (W) x 55mm (H)
Weight	300g

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> Table 1

(Americas (FCC)):
2.412 to 2.462 GHz; 11 channels
5.180 to 5.320 GHz; 8 channels
5.500 to 5.700 GHz, 8 channels (excludes 5.600 to 5.640 GHz)
5.745 to 5.825 GHz; 5 channels

(China):
2.412 to 2.472 GHz; 13 channels
5.745 to 5.825 GHz; 5 channels

(ETSI):
2.412 to 2.472 GHz; 13 channels
5.180 to 5.320 GHz; 8 channels
5.500 to 5.700 GHz, 11 channels

(Israel):
2.412 to 2.472 GHz, 13 channels
5.180 to 5.320 GHz; 8 channels

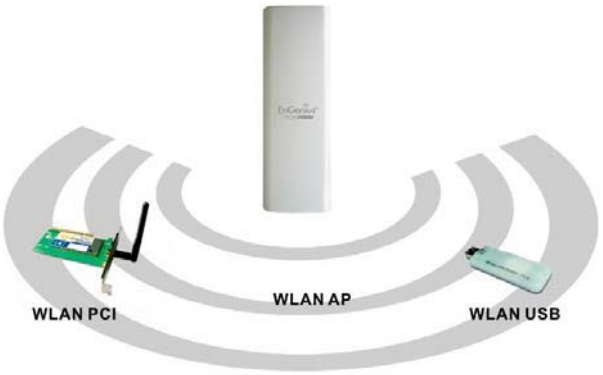
(Korea):
2.412 to 2.472 GHz; 13 channels
5.180 to 5.320 GHz; 8 channels
5.500 to 5.620 GHz, 7 channels
5.745 to 5.805 GHz, 4 channels

(Japan2):
2.412 to 2.472 GHz; 13 channels
5.180 to 5.320 GHz; 8 channels

(Singapore):
2.412 to 2.472 GHz; 13 channels
5.180 to 5.320 GHz; 8 channels
5.745 to 5.825 GHz; 5 channels

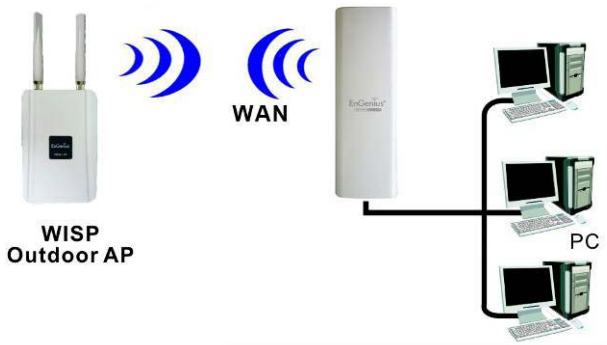
(Taiwan):
2.412 to 2.462 GHz; 11 channels
5.280 to 5.320 GHz; 3 channels
5.500 to 5.700 GHz, 11 channels
5.745 to 5.825 GHz; 5 channels

> EOC-5610 Applications (Access points, Client bridge, Client router)



Access Point Mode

Client Bridge Mode



Client Router

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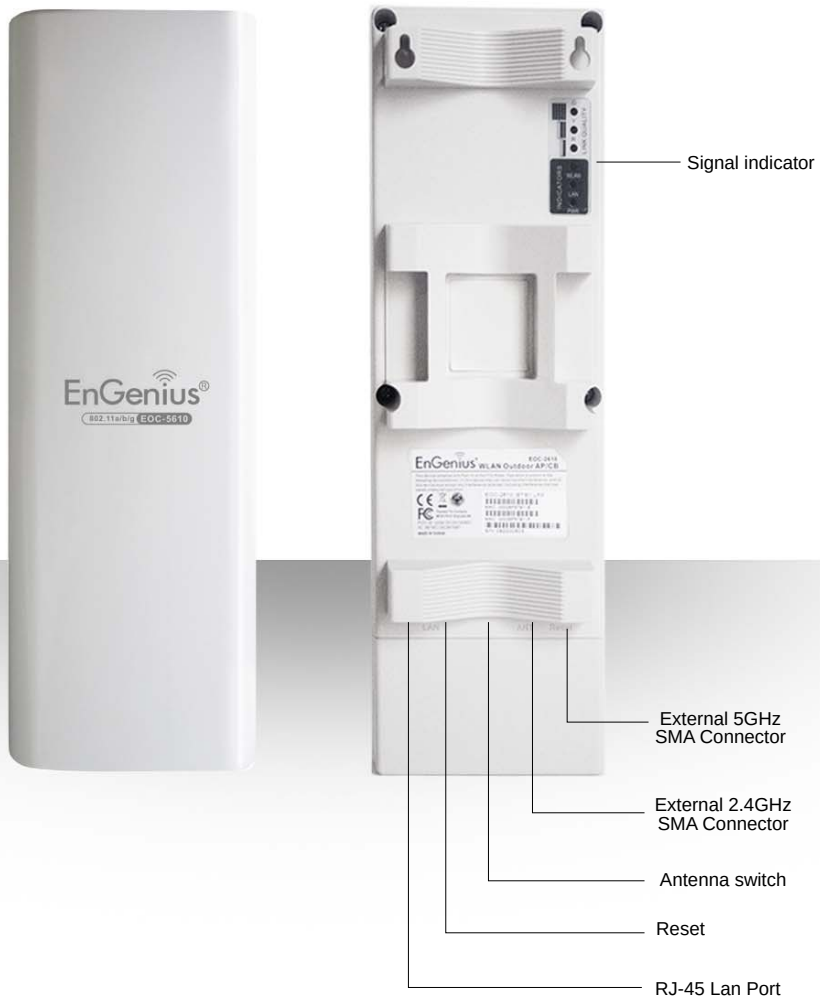
> Product ID and Mounting Base



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